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Quality assurance: standards of care and ethical practice

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In the past, standards of care in chiropractic were based upon the bias, empiricism and little if any scientific work by the author. This was due, in part, to history which fostered the belief that all that was needed was anecdotal testimony and in part to the isolation of chiropractic colleges from main stream science. Today, standards are being based upon the scientific evaluation of the clinical procedures used and formulated by consensus of experts within the profession. The chiropractic profession has the duty to create standards of practice that will advance its clinical practice, protect the patient, ensure its contribution to health care and promote research into the assessment of outcomes and effectiveness. Although such steps are being actively pursued, significant discrepancies exist between the 60 statutes regulating chiropractic practice. Absence of consensus not only in the scope of practice but also in lexicon, adds confusion within and outside the profession. In addition, the profession is facing the same difficult task as the other health care professions, the need to develop quality assurance parameters for standards of care, quality of care and outcome of care measurements. Each of the parameters must be rational, defensible and modifiable as advances in science and technology become available. It is the responsibility of each chiropractor to maintain the appropriate level of professional skills to ensure that the patient receives the best care possible.
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KEY WORDS: chiropractic, manipulation, standards.

Par le passé, les normes en matière de soins de la chiropratique étaient créées sur la base de préjugés, d'empirisme et de très peu de travail scientifique (ou pas du tout) effectué par leur auteur. Ceci était dû d'une part à une raison historique, la conviction traditionnelle que seul les témoignages anecdotiques étaient nécessaires, et d'autre part à l'isolation des écoles de chiropratique par rapport à celles de la science courante. Aujourd'hui, les normes sont fondées sur l'évaluation scientifique des procédures cliniques utilisées et formulées par un consensus de spécialistes à l'intérieur de la profession. Les chiropraticiens, en tant que corps professionnel, ont le devoir de créer des normes déontologiques qui feront progresser leur pratique clinique, qui protègeront les malades, qui garantiront leur contribution à la santé publique et favoriseront la recherche de l'évaluation des résultats et de leur efficacité. Bien que cette démarche soit activement suivie, de grandes divergences existent entre les 60 règlements régissant la pratique de la chiropratique. L'absence de consensus en ce qui concerne non seulement l'etendue de la pratique mais également en ce qui concerne la terminologie, ajoute à la confusion régnant à l'intérieur comme à l'extérieur de la profession. En outre, la profession, tout comme les autres corps médicaux, fait face à une tâche ardue : le besoin d'etablir les paramètres d'une assurance de la qualité permettant de mesurer les normes en matière de soins, leur qualité et leurs résultats. Chacun des paramètres doit être rationnel, défendable et modifiable au fur et à mesure des progrès de la science et de la technologie. Il est de la responsabilité de chaque chiropraticien de maintenir le niveau approprié de compétence professionnelle nécessaire pour garantir que le patient reçoit les meilleurs soins possibles.
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MOTS-CLÉS : chiropratique, manipulation, normes.

"Don't attempt to maintain self respect by maintaining self deception. Chiropractic facts must not be buried by the embellishment of philosophy." J. Janse

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Introduction

In the past, standards were based, commonly, on the opinion, bias and empirical work experience of an author/entrepreneur. In addition, the work would focus on a single subject or topic within the broad base of chiropractic practice with few if any scientific references, for example: chiropractic diagnosis, spinal adjustive technique, extremity adjusting, spinal x-ray marking.[1,2,3,4,5,6,7,8] The standards or guidelines would be limited to the specifics of application for a particular system or procedure rather than the broader need of being appropriate for

the patient's complaint, and/or the clinical outcome. This is not to argue that such specificity should not continue, but to emphasize that all such works be established on criteria firmly based upon the scientific evaluation of clinical procedures by consensus of experts within the profession. Of course, not all clinical procedures can be "scientifically validated", in fact, it is unlikely that more than a small percentage will be so validated in the foreseeable future. Regardless, the principles underlying the clinical procedure should not be at variance with scientific knowledge as interpreted by the ongoing consensus of experts.

As the chiropractic profession prepares to celebrate its centennial, and before entering the 21st century, it faces a unique challenge. First, the profession has a duty to create standards of practice that will advance the extent and quality of chiropractic health care, protect patient rights, and ensure the independence of chiropractic physicians in the health market place. Second, to reach consensus on standards of care and direct research to the assessment of outcomes, the analysis of effectiveness and quality assurance necessary for that care.

Reasons abound why this has not occurred until the present time, and much of that is history. Nevertheless, the profession is pursuing standards of practice and care in a dynamic fashion, that is exemplary for a patient oriented health care profession. The "Consensus Conference on the Validation of Chiropractic Methods" in Seattle, Washington, March 1989;[9] the "International Conference on Spinal Manipulation (FCER)" in Washington, DC, May 1990; and the June 1991 "Consortium (Pacific) for Chiropractic Research (CCR) Consensus Conference on Chiropractic Technique" in Monterey, California, are a few of the professions efforts to address this complex subject. In addition, most colleges and associations are beginning to emphasize practice standards in continuing education programs. However, the external forces which impeded chiropractic progress in the past (and still remain in many quarters today) and the present movement towards standards-outcomes deserves some mention.

After more than 95 years of providing effective conservative health care to millions of patients, the chiropractic profession is unable to demonstrate the clinical efficacy of that care, in but a few conditions. Fortunately, these tend to be conditions most frequently seen (see Table 1). This unacceptable record stands out in stark contrast to the exhorbitant claims made for chiropractic spinal adjusting since 1895. In the beginning, "*post hoc ergo propter hoc*"† and anecdotal testimony by patients and practitioners provided all that was necessary to "stake-out" the chiropractic therapeutic territory.

In contrast recent decades have witnessed a growing clamor by society, for greater accountability by all health care professions for improved quality of care and clinical outcomes. For the chiropractic profession this requires: i) reaching consensus on standards for what the profession practices today, ii) conducting controlled clinical research studies in areas lacking consensus, iii) promoting reporting of clinical trials and/or single patient studies, and iv) reaching consensus for a scope of practice based on scientific criteria rather than relying upon anecdotal data. Chiropractic is not alone in having difficulty documenting clinical efficacy in a scientific manner.[10] Rachlis and Kushner[11] write, "As many as 80% of all treatments, including surgeries, have never been scientifically tested to prove their worth. Medical history is littered with abandoned therapies that were once common practice but are now utterly discredited."

Reasons abound why clinical research has not been pursued with more vigor by the chiropractic profession and colleges. A major factor has been its isolated position, in which chiropractic practice and education was placed by medicine and the higher education community prior to the acceptance of the Council on Chiropractic Education as the official accrediting body by the

†Latin: After this, therefore because of this. Used to explain illogical reasoning.

Table 1
PERCENTAGE OF PRACTICE BY CONDITIONS TREATED

CONDITIONS	1988 %0	1987 %0	1986 %0	1985 %0	1984 %0	1983 %0
Neuromusculoskeletal	86.4	87.5	87.2	86.8	85.3	84.2
Viscerosomatic	8.6	8.0	8.9	8.9	9.2	10.4
Vascular-related	3.7	2.9	3.0	2.9	4.0	4.0
Nutrition	0.3	0.3	0.3	0.4	0.4	0.4
Other	0.9	1.2	0.6	1.0	1.1	1.0
TOTALS	99.9	99.9	100.0	100.0	100.0	100.0

(Courtesy of American Chiropractic Association)

United States Department of Education in 1974, and the Council on Postsecondary Accreditation in 1976. The financial loss to the profession attributed to the denial of research funds as an outcome from this imposed isolation will never be known. No doubt it could be measured in the billions. It is my opinion that the "continental divide" between the anecdotal era and the scientific era of chiropractic practice followed the 1974 accreditation of chiropractic education and the February, 1975 National Institute of Neurological and Communicative Disorders and Stroke (NINCDS) conference held in Bethesda, Maryland,[12] which examined the research status of spinal manipulative therapy.

Chiropractic practice acts

Chiropractic practice Acts define the practice of chiropractic and establish regulations for licensure, discipline and scope of practice for all sixty jurisdictions in the United States Canada. The diversity of definitions for the chiropractic lexicon found in these chiropractic practice Acts is typical of the problems referenced earlier that face the profession as negotiations for agreement on basic definitions begins. Regardless of the vehicle used to achieve consensus for definition and purpose of the profession, progress and agreement will be painfully slow. This is amplified by a recent News Release by the International Chiropractic Association[13] in which policies on diagnosis, immunization, fluoridation, and scope of practice were adopted in isolation from other organized segments of the profession.

An examination of the fifty-two (52) chiropractic practice Acts of the United States[14,15] adds to the confusion of the problems in definition facing the profession. To reach agreement on defining "subluxation", "adjustment" and "manipulation", three terms fundamental to all chiropractic physicians, may prove to be a monumental task in itself. For example, the 52 practice Acts provide definitions of these three key terms.

Subluxation: the most respected biological concept in chiropractic science does not receive much respect in statute.

i. only four (4) Acts use 'subluxation' alone, without definition or modifiers.
ii. only four (4) Acts include a definition of subluxation with no uniformity in definition from one act to another.
iii. nine (9) practice Acts include modifiers to describe subluxation. e.g. manipulation, nerve transmission and expression, misalignment, imbalance with distortion.
iv. six (6) practice Acts make no reference to subluxation.
v. twenty-eight (28) practice Acts use other terms, alone or in combination, without 'subluxation' e.g. anatomical displacements, abnormal functioning articulations, interference of transmission and expression of nerve energy, science of palpating articulations, treat human ailments, any misplaced tissues, malposition of articulations, realigning the spine to release pressure on nerves.
vi. one practice Act has no reference to any of the above.

Adjust: probably the most revered and defended word in chiropractic practice that identifies the preferred treatment modality, fairs better in statute.

i. twenty-three (23) practice Acts use 'adjust' without any modifiers or definition.
ii. three practice Acts use 'adjust' with a definition or modifier.
iii. nineteen (19) practice Acts use 'adjust' and 'manipulation' equally and complementary to each other.
iv. three (3) practice Acts use terms other than 'adjust' or 'manipulation' and without reference to either. e.g. externally applied mechanical pressures, correction, manual or mechanical.

Manipulation: a word very prominent in practice Acts, as noted in iii) above, but rejected by many chiropractors who adhere to a more fundamental philosophical focus. It is their position that 'manipulation' is not 'chiropractic'.

i. two (2) practice Acts use 'manipulation' alone and without modifiers or definition.
ii. one (1) practice Act uses 'manipulation' with a modifier. e.g. preparatory procedure.

Scope of practice

The same 52 practice Acts only confuse the question further when statutory scope of practice is examined. The diversity of interpretation of what constitutes the scope of chiropractic practice is bewildering at best and professional suicide at worst.

I do not have ready access to the regulations or administrative rules governing the enforcement of the chiropractic practice Acts, which may include key definitions, add restrictions to clinical practice, or be more permissive than the statute suggests. This is not the issue. The issue is the absence of consensus in contemporary practice Acts.

Kusserow[16] succinctly states, "The States's practice act definitions of what a chiropractor may and may not do differ substantially across the nation. This variability seriously undermines the desire of many chiropractors to be regarded as a unified profession with clearly established standards for practice and treatment." Lamm[17] conducted a survey of 60 North American practice Acts with 42 responses. His conclusion includes the following, "The results of the survey, while revealing a broad scope of chiropractic practices, also demonstrated a lack of consensus within the chiropractic profession. It is not unexpected that this not only causes confusion in the minds of those within the chiropractic profession but also in the minds of those who access services from or conduct business with chiropractors."

One conclusion that can be drawn from this is that terminology, in the lexicon of the scientific community, (manual therapy, manipulation) and adopted by the chiropractic profession shall be used according to the accepted definitions. However, terminology originating within chiropractic science, (adjustment, subluxation/fixation) must be defined on a consen-

sus basis and used uniformally as such by the profession, and its educational institutions.

Standards of care

As important as consensus is for defining chiropractic as a health discipline, with an appropriate scope of practice, including agreement on definitions for subluxation, adjust(ment) and manipulation, this pales in contrast to the larger problems facing the profession this decade. Beyond the growing public concern for excessive health care costs (largely due to the overservicing of patients, unnecessary diagnostic and treatment procedures and duplication of costly resources), there is a more serious issue for the health care professions; the need to develop quality assurance parameters for standards of care, quality of care and outcome of care measurements. This will not be an easy task. In fact, the resources required, not to mention the costs, are astronomical for a small profession like chiropractic. Although allopathic medicine may appear to be better placed and prepared than chiropractic, for the task based on financial, physical and professional resources, I doubt this to be true. The comprehensive scope of medical practice (medicine and surgery) in comparison to the more limited practice of chiropractic suggests an equally difficult mission.[18,19,20]

The construct of standards for chiropractic practice, standards of care, and quality of care is the responsibility of the profession, through its regulatory boards and associations, accredited colleges, and consensus building. Although standards of practice may be based, primarily, on what is taught in and through chiropractic colleges, such standards must be consistent with the scientific community, and what is accepted as usual and customary by a majority of the profession. For example, the chiropractic adjustment is the usual and customary therapeutic modality used by all chiropractors. However, scientific studies have yet failed to prove or disprove the value of this theory in all but a few clinical situations. Regardless, clinical trial, as empirical as it may be, demonstrates, unequivocally, that there is an important clinical value for chiropractic adjustment, beyond random chance or placebo. On the other hand, there is an undisputed scientific basis for analysis of the urine and blood for the differential diagnosis of certain diseases. This comparison between "usual and customary" and 'scientific basis'; for therapeutic and diagnostic modalities applies also to allopathic medicine where it is estimated that 80% of all medical therapies are scientifically untested.[11,26]

The responsibility for developing and adhering to standards of chiropractic practice has been noted. Nevertheless, in evaluating clinical judgement used in applying accepted standards a dichotomy presents itself. Clinical procedures (diagnostic and therapeutic) primary to clinical chiropractic (spinal adjustment) will be interpreted and judged by chiropractic physicians. However, if clinical procedures (diagnostic and therapeutic) not primary to chiropractic practice are used, (electrodiagnosis and clinical psychology) then interpretation and judgement will be from those in whose professional domain that modality is primary. In many situations a domain will be shared by two or more health care professions (diagnostic imaging) such that interpretation and judgement will be concerned with the clinical specifics, for example biomechanical findings and pathological findings.

Standards of practice

There are two levels of standards of practice which need to be recognized. First, standards of practice taught by accredited colleges, and accepted as usual and customary by the profession, which represent the highest level of standards. Second, standards of practice dictated by statute. These may be at a level below what the profession and its educational institutions have mandated as minimal.

It is essential for standards of practice to be rational and defensible, and not place artificial barriers in the way of clinical progress. As science and technology advance so should the components and standards of chiropractic practice. Not to be forgotten is that standards of practice and their sub-categories, collectively represent the "patient's bill of rights," in all matters of health care, and as such must be under constant review to reflect the changing scope of practice and technology.

Conclusion

Authors have identified objectives for standards of practice in a number of different ways. Some have been fashioned after the Ontario Council of Health Task Force report on Chiropractic (1973),[21] and Haldeman (1981).[22] I have included a scope of practice for chiropractic education and resource taken from the text, Chiropractic Standards of Practice and Quality of Care – Aspen Publishers 1991. (Appendix 1).

A chiropractic physician, accepting a patient for any professional reason has a duty and responsibility to perform an appropriate clinical evaluation, and to arrive at a clinical impression of the patient's complaint before proceeding with care, consultation or referral. This is a premise required by the profession, wherever chiropractic physicians practice[23,24] and is prescribed in the Educational Standards of all chiropractic accrediting agencies.[25]

References

1 Langworthy SM, Smith O, Paxson MC. Modernized chiropractic. Cedar Rapids: American School of Chiropractic, 1906.
2 Beatty HG. Anatomical adjustive technique. 2nd ed. Denver: 1939.
3 Carver W. Chiropractic analysis. Oklahoma City: Carver Chiropractic College, 1915.
4 Gillet H. Belgium Chiropractic research notes. 8th ed. Brussels: 1970.
5 Illi F. The vertebral column – life line of the body. Chicago: National College of Chiropractic, 1951.
6 Loban J. Technic and practice of chiropractic. Denver: Bun-Loban Pub, 1928.
7 Logan HB. Logan basic methods. St. Louis: Logan College of Chiropractic, 1950.

Appendix 1

STATEMENT ON SCOPE OF PRACTICE FOR CHIROPRACTIC EDUCATION

1. *Primary Chiropractic Practice:* means any professional service usually performed by a chiropractic physician, the aim of which is to restore and maintain health, and includes: [key words are in bold]
   - I. The **diagnosics**, **treatment**, and **prophylaxis** of **functional disturbances**, **pathomechanical states**, **pain syndromes,** and **neurophysiological effects** related to the **statics** and **dynamics** of the **locomotor system**, more particularly the spine and pelvis.
   - II. The treatment thereof by **adjustment** and/or **manipulation** of the spine and other anatomical structures.
   - III. **Counseling**: The realization that genetics, emotional, sociological, economic, workplace, and environmental stresses are a significant and common cause of interference with the normal function of the nervous system, in the whole person.
   - IV. The use of diagnostic imaging, to include x-ray, CT, MR, and thermography.
   - V. **Consultation and referral**: is a duty when the patient requests, when a diagnosis cannot be determined, when clinical trial care is without evidence or improvement, and if treatment is beyond the skill, knowledge or scope of practice of the chiropractic physician.
2. *Adjunctive Physical Procedures*: use of supportive measures including rehabilitative exercise, heliotherapy, thermotherapy, hydrotherapy, electrotherapy, and mechanotherapy (to include: traction; supportive collars; tape and braces; heel or sole lifts; foot stabilizers; etc.) as required.
3. *Nutrition*: the use of dietary regimens and nutrition supplementation to influence the physiological processes by which the living organism receives and utilizes the materials necessary for the maintenance of its functions and for growth and renewal of its components.
4. *Other*: diagnostic and treatment procedures as provided by statute.

SCOPE OF PRACTICE FOR DIAGNOSTICS, THERAPEUTICS, AND CLINICAL EFFECTIVENESS (PATHOPHYSIOLOGICAL)

Diagnostic Scope: The diagnostic scope of practice is based on the chiropractor's legal and ethical responsibility, as a primary contact health care provider, to adequately diagnose, provide appropriate treatment, consult and/or refer the patient to another health care provider.

Therapeutic Scope: is based, traditionally, on the manual adjustment or manipulation of the spine, pelvis and extremities, to effect the neurological, muscular, articular, and vascular functions of the body, in health and disease. Although chiropractic health care is viewed as a single therapeutic modality, a majority of the profession regularly use a wide range of therapies.

Clinical Effectiveness Scope: The scope of clinical chiropractic effectiveness has not been defined, although neuromusculoskeletal complaints represent the majority of clinical situations as seen by the profession today.[1,2,3]

1 Vear HJ. A study into complaints of patients seeking chiropractic care. J Can Chiropr Assoc: 1972: October.
2 State of The Art, 1989–1990 American Chiropractic Association, Arlington, VA pp 26.
3 American Chiropractic Association. ACA Department of Statistics Completes 1989 Survey 1990; 27:2, 80.

8 Janse J, Wells R, Houser B. Chiropractic principles and practice. Chicago: National College of Chiropractic, 1947.
9 Conference proceedings. Chiropractic Technique, 1990; 2(3).
10 Epstein AM. The outcomes movement – will it get us where we want to go? N Engl J Med 1990; 323:266–269.
11 Rachlis M, Kushner C. Second opinion. Toronto: Collins Publishers, 1989: 10.
12 Goldstein M, ed. The research status of spinal manipulative therapy (NINCDS Monograph No. 15). Bethesda: US Department of Health, Education and Welfare, 1975.
13 ICA Board adopts major new policies and resolutions for the 90s. News release, International Chiropractors Association, Arlington, VA 1990, April 18.
14 Scope of chiropractic practice by statute, board rule/regulation. ACA Legal Handbook Volume II, American Chiropractic Association, 1985: 1–76.
15 1987–88 Official directory of chiropractic examining boards with licensure and practice statistics. Glendale: Federation of Chiropractic Licensing Boards, 1988: 4–62.
16 Kusserow RP. State licensure and discipline of chiropractors. 1989: Office of Inspector General, DHHS publication OAI–01–88–00581.
17 Lamm Lester C. Chiropractic scope of practice: what the laws says. Presented before Pacific Consortia for Chiropractic Research, October, 1989.
18 Kanouse DE, et al. Changing medical practice through technology asessment – a Rand Corporation study. Ann Arbor: Association for Health Services Research and Health Administration Press, 1989.
19 Chassin MR, et al. The appropriateness of selected medical and surgical procedures, a Rand Corporation study. Ann Arbor: Association for Health Services Research and Health Administration, 1989.
20 Young ALC, ed. Quality of care. Health Care Financing Review, 1987. Baltimore: Health Care Financing Administration, Department of Health and Human Services, 1987.
21 Hall O, et al. Scope of practice and educational requirements for chiropractors in Ontario – 1973. Toronto: Ontario Council of Health, 1973; Appendix D, 38–39.
22 Haldeman S. Responsibilities of a primary contact health care professional. In: Spinal neurology, a practical course. Portland: Western States Chiropractic College, 1981.
23 Code of ethics. Arlington: American Chiropractic Association; 1988.
24 Code of ethics. Mississauga: Ontario Chiropractic Association: 1989.
25 Education standards for chiropractic education. Council on Chiropractic Education: 1989. (Australia, Canada, USA). Nepean VIC; Toronto, ON; Des Moines, IA.
26 Assessing the efficacy and safety of medical technologies. Springfield: National Technical Information Service, United States Department of Commerce, 1978.
27 Vear HJ (ed). Chiropractic standards of practice and quality of care. Gathersburg: Aspen Publishers, 1991.